

WHAT IS CLAIMED IS:

1. A connector, comprising:

first and second housings (20, 10; 80, 70) connectable with each other, the first housing (20; 80) having a lock arm (30; 82) with an engageable portion (35; 87) and the second housing (10; 70) having a lock (15; 73) engageable by the engageable portion (35; 87), the lock arm (30; 82) being deflected as the housings (20, 10; 80, 70) are being connected, and the returning resiliently when the housings (20, 10; 80, 70) are connected properly so that the engageable portion (35; 87) engages the lock (15; 73), and

a detector (50; 100) detachably mountable to the first housing (20; 80) for detecting a connected state of the two housings (20, 10; 80, 70) based on whether the detector (50; 100) can be pushed from a standby position (FIG. 8; 15; 20) toward a detecting position (FIG. 9; 16), wherein:

the detector (50; 100) comprises a resilient locking piece (58; 109) opposed to the engageable portion (35; 87) of the lock arm (30; 82) at its initial position before the two housings (20, 10; 80, 70) are connected and at an initial stage of connection of the two housings (20, 10; 80, 70), the resilient locking piece (58; 109) being configured to prevent the detector (50; 100) from being pushed in a mounting direction (MD), and

the lock (15; 73) having a guiding surface (15B; 73a) opposed to the resilient locking piece (58; 109) when the engageable portion (35; 87) engages the lock (15; 73) and permits the detector (50; 100) to be pushed in the mounting direction (MD) while resiliently deforming the resilient locking piece

(58; 109) held in contact therewith when the detector (50; 100) is pushed in the mounting direction (MD).

2. The connector of claim 1, wherein the contact means (38, 60; 103, 111) has a cam surface (61; 111a) for engaging the lock arm (30; 82) to move the detector (50; 100) in a direction substantially opposite to the mounting direction (MD) from a push-preventing position (FIG. 10; 12; 19) where the lock arm (30; 82) is held by the resilient locking piece (58; 109) and the engageable portion (35; 87) to the standby position when the lock arm (30; 82) is deformed during the connection of the two connector housings (20, 10; 80, 70).

3. The connector of claim 1, wherein: the first housing (20; 80) has a return preventing portion (91) and the detector (50; 100) is formed with a deformation preventing piece (111); the deformation preventing piece (111) and the return preventing portion (91) contact while the detector (50; 100) is held at the push-preventing position by the resilient locking piece (58; 109) and the engageable portion (35; 87), thereby preventing the detector (50; 100) from moving toward the standby position; and the deformation preventing piece (111) is disengaged from the return preventing portion (91) and is deformed resiliently by the engagement with the lock arm (30; 82) deformed in the process of connecting the two housings (20, 10; 80, 70) so that backward movement of the detector (50; 100) toward the standby position is permitted.

4. The connector of claim 1, wherein the contact means (38; 60; 103, 111) comprises a deformation preventing piece (111) and a contact portion (60; 103) formed on the first housing (20; 80) and, when the detector (50; 100) is pushed in a partly connected state of the two housings (20, 10; 80, 70) where the lock arm (30; 82) is deformed, the deformation preventing piece (111) pushed by the lock arm (30; 82) comes substantially into contact with the contact portion (60; 103) to be prevented from undergoing a resilient deformation, thereby preventing the detector (50; 100) from being pushed.

5. The connector of claim 1, wherein the detector (50; 100) is formed with a restricting surface (62; 104a) for slipping under an operable portion (34; 86) used to deform the lock arm (30; 82), thereby substantially preventing the lock arm (30; 82) from being deformed when the detector (50; 100) is pushed to the detecting position.

6. The connector of claim 1, wherein a lock arm contact portions (62; 91) are provided for preventing the lock arm (30; 82) from being deflected, when the detector (50; 100) is substantially in the detecting position.

7. The connector of claim 1, wherein the detector (50; 100) has a semi-locking construction (59; 110) for allowing the detector (50; 100) to be returned in a direction substantially opposite to the mounting direction (MD) to the standby position when a force larger than a specified force is applied thereto.

8. The connector of claim 1, wherein loose movement restricting means (43, 56; 92, 108) are provided for restricting upward and/or transverse loose movements of the detecting member (50; 100) with respect to the first housing (20; 80).

9. The connector of claim 1, wherein when the detector (50; 100) is pushed in the mounting direction (MD) to the detecting position, the rear end surface thereof is substantially flush with the rear end surface of the female housing (20; 80).